

## ABSTRACT

A homogeneous assay for determining the aflatoxin content in agricultural products uses the technique of fluorescence polarization. A solvent is used to extract aflatoxins from a sample of the agricultural product. A mixture is prepared by combining  
5 the extract with a tracer and with a monoclonal antibody specific for aflatoxin. The tracer is able to bind to the monoclonal antibody to produce a detectable change in fluorescence polarization. The tracer is prepared by conjugating an aflatoxin oxime to a suitable fluorophore. The fluorescence polarization of the mixture is measured. The aflatoxin concentration of the mixture may be calculated using a standard curve obtained by  
10 measuring the fluorescence polarization of a series of aflatoxin solutions of known concentration.